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09/814,364	03/21/2001	Markus Eichelsdoerfer	DE920000027US1	3919

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EXAMINER

EDELMAN, BRADLEY E

ART UNIT	PAPER NUMBER
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2153

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DATE MAILED: 08/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/814,364

Applicant(s)

EICHELSDOERFER ET AL.

Examiner

Bradley Edelman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☒ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This Office action is a first action on the merits of this application. Claims 1-27 are presented for examination.

Claim Objections

1. Claims 22-27 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claims 22, 23, 26, and 27 are improper because they do not include all of the limitations of the claims from which they depend, and thus do not further limit the claims from which they depend. Claims 24 and 25 depend from claim 23, and thus are objected to for the same reasons.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 4 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not

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described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 4 states that the transaction ID is generated by the client. However, the specification does not describe how the system would work where the client generates the TID. Instead, the specification only describes the workings of a system where the client sends an initial request and the server generates and assigns the ID. While the specification teaches that the client may append the ID to its subsequent requests, this is different from the client *generating* the ID. Such transaction ID generation by the client is not disclosed in the specification.

3. Claims 18, 19, and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In considering claims 18, 19, and 21, each of these claims is worded in a way that it is unclear whether the "if" clause that ends the claim should apply to each of the listed limitations, or only to the last listed limitation. Appropriate clarification is required.

In further considering claim 18, the phrase "the response" on line 3 of the claim lacks sufficient antecedent basis. It is unclear from the claim what is meant by "the response," because the claim mentions a particular request, requests in general, a specific update request, opening and closing a transaction, and other factors that could generate a "response." Also, claim 18 is ambiguous because it mentions "a valid transaction identifier corresponding to said transaction identifier." This phrase is unclear

because multiple "transaction identifiers" are mentioned previously in the claim (i.e. on lines 1-2 of claim 18 and in step (b) of claim 1.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-12, 16, 18-23, 26, and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Jacobs et al. (U.S. Patent No. 6,334,114, "Jacobs").

In considering claim 1, Jacobs discloses a method for realizing transactions with an existing protocol used by different system components communicating with each other (i.e. clients and servers), wherein each transaction contains update requests belonging together and each update request is generated by a first system component (i.e. client browser) and transmitted to a second system component (i.e. server) allowing access to a storage medium on which information to be updated is stored (col. 20, lines 25-60; col. 22, lines 1-27, wherein the client sends requests to the server to add and process information at the server), said method being performed automatically and comprising the steps of:

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(a) opening a transaction by adding a transaction control to an update request to create an extended update request supported by the protocol securing exchange of update requests between said system components (col. 18, line 46 – col. 19, line 22, wherein the client submits a request that includes a “begin” transaction control to open a session for updating banking or account information at the server);

(b) generating a transaction identifier (“transaction ID”) for said transaction supported by said protocol (col. 20, lines 30-32, “transaction manager creates a globally unique transaction ID”);

(c) adding said transaction identifier to each update request belonging to said opened transaction (col. 20, lines 27-29, describing the “multiple-request transaction” nature of the system); and

(d) automatically closing said transaction by using a transaction control supported by said protocol (col. 27, lines 50-62, “execution engine 228 notifies the dispatcher 214 that the processing of the revised browser request is complete and signals the dispatcher 214 to cause the cookie information associated with the committed multiple-request transaction to be removed from the sending browser”).

In considering claim 2, Jacobs further discloses that the first system is a client (“browser”) and the second is a server (“server”).

In considering claim 3, Jacobs further discloses that the transaction id is generated by the server (col. 20, lines 29-31; Fig. 6, wherein the transaction manager is on the server and generates the ID).

In considering claim 4, Examiner has interpreted the claim language in light of the specification, which does not disclose that the client generates a transaction id, but only discloses that the client requests may contain the transaction id. In view of this understanding, Jacobs also discloses that subsequent client requests will include the transaction ID (col. 20, lines 27-29, "unique transaction ID within a browser request is used to identify the multiple-request transaction to which the browser request belongs").

In considering claim 5, Jacobs further discloses that the transaction ID is sent from the server to the client (col. 20, lines 31-32, "this globally unique transaction ID is returned to the sending browser").

In considering claim 6, Jacobs further discloses that step (a) is performed with a first update request of a sequence of update requests forming a transaction (col. 9, lines 1-12, describing opening the transaction).

In considering claim 7, Jacobs further discloses that the request is a delete, add, or modify request (col. 19, lines 12-23; col. 22, lines 40-65; col. 25, lines 24-35; col. 29,

lines 20-28, describing that operations are performed on the requested databases, such that the operations cause changes to the database).

In considering claim 8, Jacobs further discloses that the transaction control for opening a transaction according to step (a) has a value indicating a new transaction (col. 19, line 10, "begin=/employee/open session").

In considering claim 9, Jacobs further discloses that step (d) is performed with a last update request of a sequence of update requests forming a transaction (col. 27, lines 35-62, wherein the transaction is completed upon execution of the last request via a commit request).

In considering claim 10, Jacobs further discloses that the transaction control for closing the transaction has a value of commit or rollback (col. 27, lines 47-49, "the commit request includes the globally unique transaction ID;" col. 29, lines 20-28, transaction control message to the transaction manager 606 requesting it to rollback the transaction").

In considering claim 11, Jacobs further discloses that all extended update requests belonging to a transaction are stored to a queue and performed as a whole when an update request containing a transaction control having a value indicating commit is received (col. 27, lines 42-46, "at step 771, the transaction manager 606

sends a commit request to database servers 608 and 612 to cause all changes made in response to the various browser requests that belonged to the multiple-request transaction to be committed as an atomic unit of work.” Note: although the Jacobs system does not use the word “queue,” it does disclose that the requests are stored while waiting to be committed. This by definition constitutes a queue of requests.)

In considering claim 12, Jacobs further discloses that each individual extended update request belonging to a transaction is performed immediately after data to be updated has been stored on a nonvolatile storage medium (col. 31, lines 12-49 describe that a preferred embodiment includes such a system).

In considering claim 16, Jacobs further discloses that an update request containing neither a transaction control nor a transaction identifier is performed as a single atomic request (col. 27, lines 27-34, “subsequent browser requests that are issued in response to selection of a hyperlink from the HTML page will not contain the globally unique transaction ID and, therefore, will not be mistakenly associated with this multiple-request transaction”).

In considering claim 18, Examiner has interpreted the “if” clause as applying to all three criteria, and has also interpreted the phrase “a valid transaction identifier corresponding to said transaction identifier” as simply meaning “a valid transaction identifier.” Examiner has further interpreted the term “the response” on line 3 of the

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claim as meaning "a response." Thus, as interpreted, Jacobs further discloses that if an update request received by the server contains a transaction control having a value indicating a commit and a valid transaction identifier, then all update requests identified by a transaction identifier are performed, a transaction control having a value indicating a commit and said valid transaction identifier are added to a response, and the transaction identified by the valid transaction identifier is closed (col. 27, lines 21-62, wherein the commit request causes the server to "cause all changes made in response to the various browser requests that belonged to the multiple-request transaction to be committed as an atomic unit of work," and wherein the transaction ID and a commit message are sent to the browser to remove the transaction ID from the browser cookie).

In considering claim 19, Examiner has interpreted the "if" clause as applying to all three criteria. Thus, as interpreted, Jacobs further discloses that if the update request cannot be performed successfully, then all effects caused by the update requests belonging to the transaction identified by the transaction ID are rolled back, the transaction is closed, and a response is extended with a transaction control having a value indicating a rollback and with the transaction ID (col. 29, lines 19-40; col. 30, lines 49-67, wherein if there is a timeout, then the claimed rollback procedure occurs and a response from the server indicates to the browser the rollback and the transaction ID).

In considering claim 20, Jacobs further discloses that a new transaction is opened when an update request does not contain a transaction identifier and contains a

transaction control with a value indicating a new transaction (col. 19, lines 19-22; col. 20, lines 25-35, wherein a new request includes a "begin" transaction control and no transaction ID).

In considering claim 21, Examiner has interpreted the "if" clause as applying to all three criteria. Thus, as interpreted, Jacobs further discloses that if the first request of a transaction cannot be performed successfully, then rolling back all effects caused by said update requests, closing the transaction identified by the transaction ID, and extending a response with a transaction control having a value indicating a new transaction but not with the transaction ID (col. 29, lines 19-49; col. 30, lines 49-67, wherein if there is a timeout, then the claimed rollback procedure occurs and such that responses constituting "subsequent browser requests will not contain the globally unique transaction ID").

In considering claim 22, Jacobs further discloses a computer program product containing computer code for implementing the method in accordance with claim 1 (Fig. 1).

In considering claim 23, Jacobs further discloses the system including a client and server and data storage medium for implementing the method of claim 1 (Figs. 1 & 2).

In considering claim 26, Jacobs further discloses a system including a client with a program that adds transaction control information and a transaction identifier to update requests according to the method of claim 1 (col. 19, lines 1-22).

In considering claim 27, Jacobs further discloses a system including a server with a program that generates a transaction identifier taught in claim 1 and a component for accessing or updating data (col. 20, lines 25-63).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs.

In considering claim 17, although the system taught by Jacobs discloses substantial features of the claimed invention, it fails to explicitly disclose that if an update request has a transaction control with a syntactically invalid value, then the update is not performed. Nonetheless, Examiner takes official notice that it is well known for computer commands with incorrect syntax to be not performed (i.e. often an error message will appear for such a syntactically incorrect command). Thus, given this knowledge, it would have been obvious to not perform update requests in the system

taught by Jacobs when the request is not syntactically correct, in order to ensure that only correct commands are processed.

6. Claims 13-15, and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs, in view of Kikuchi et al. (U.S. Patent No. 6,377,948, "Kikuchi").

In considering claim 13, although the system taught by Jacobs describes the use of the HTTP protocol to allow the transactions between the clients and the database at the server, the use of other protocols to communicate between clients and databases over a network, and particularly the LDAP protocol are well known, as evidenced by Kikuchi. In a similar art, Kikuchi discloses a network system for allowing clients to access databases over the network and to allow multiple access requests to be part of a single transaction (col. 4, lines 8-21), wherein the protocol used to access the database is LDAP or LDAP V3 (col. 5, lines 36-41; col. 1, line 50). Given this knowledge, a person having ordinary skill in the art would have readily recognized the desirability and advantages of using LDAP as the communication protocol in the system taught by Jacobs, because implementation of LDAP requires fewer resources than other protocols. Therefore, it would have been obvious to use the LDAP as the communication protocol in the system taught by Jacobs.

In considering claim 14, Jacobs further discloses that the transaction control and the transaction identifier each comprise a control name and a control value (i.e.

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"begin=/employee/open session," col. 19, line 10; "globally unique transaction id," col. 20, lines 44-45), wherein the value comprises binary data (all values readable by a computer comprise binary data). In the combined LDAP system of Jacobs and Kikuchi, the name will comprise a unique LDAP object identifier (col. 5, lines 40-45, "globally unique object identifier").

In considering claim 15, Kikuchi further discloses that the information to be updated in a LDAP database is stored in a directory information tree ("directory tree," col. 1, lines 29-32).

In considering claim 24, as discussed above, Kikuchi discloses that the client program is an LDAP program, the server program is an LDAP program, and the information to be updated or accessed is stored in a directory information tree (col. 5, lines 36-39; col. 1, lines 29-32).

In considering claim 25, Kikuchi further discloses a back-end for managing a subtree of the directory information tree containing information to be updated, and a component which is part of the server program for routing an update request to said backend managing said subtree of said directory information tree containing the information to be updated (col. 1, lines 29-37, describing the hierarchical structure of the directory tree).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley Edelman whose telephone number is 703-306-3041. The examiner can normally be reached between 9 am and 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on 703-305-4792. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bradley Edelman

BE
August 10, 2004